HAI WANG (Newark, DE) and MICHAEL FRENKLACH (Berkeley, CA)
A Detailed Kinetic Modeling Study of Aromatics Formation in Laminar Premixed Acetylene and Ethylene Flames 173

H. WANG, C. J. SUNG, and C. K. LAW (Princeton, NJ)
On Mild and Vigorous Oxidation of Mixtures of Chlorinated Hydrocarbons in Droplet Burning 222

E. S. KIM, H. S. LEE, C. F. MALLERY, and S. T. THYNELL (University Park, PA)
Thermal Decomposition Studies of Energetic Materials Using Confined Rapid Thermolysis/FTIR Spectroscopy 239

YUDAYA R. SIVATHANU and JAY P. GORE (West Lafayette, IN)
Effects of Gas-Band Radiation on Soot Kinetics in Laminar Methane/Air Diffusion Flames 256

STEVEN K. CHIDESTER, CRAIG M. TARVER, LEROY G. GREEN, and PAUL A. URTIEW (Livermore, CA)
On the Violence of Thermal Explosion in Solid Explosives 264

RANDALL L. VANDER WAL (Cleveland, OH)
Investigation of Soot Precursor Carbonization using Laser-Induced Fluorescence and laser-Induced Incandescence 281

VOLUME 110 NUMBER 3 AUGUST 1997

Contents

M. L. RIGHTLEY and F. A. WILLIAMS (La Jolla, CA)
Burning Velocities of CO Flames 285

L. FALLOT (La Plaine Saint-Denis, France) M. GONZALEZ, R. ELAMRAOUI, and M. OBOUNOU (Mont-Saint-Aignan, France)
Modelling Finite-Rate Chemistry Effects in Nonpremixed Turbulent Combustion: Test on the Bluff-Body Stabilized Flame 298

SHWIN-CHUNG WONG, XIN-XIONG LIAO, and JENG-RENN YANG (Taiwan, Republic of China)
A Simplified Theory of the Ignition of Single Droplets under Forced Convection 319

TAREK ECHEKKI (Livermore, CA)
A Quasi-One-Dimensional Premixed Flame Model with Cross-Stream Diffusion 335

A. N. HAYHURST and A. D. LAWRENCE (Cambridge, U.K.)
The Reduction of the Nitrogen Oxides NO and N_2O to Molecular Nitrogen in the Presence of Iron, Its Oxides, and Carbon Monoxide in a Hot Fluidized Bed 351

JU-JENG WHANG, CHUNG-YU YUKAO, JINN-TSAIR HO, and SHWIN-CHUNG WONG (Taiwan, Republic of China)
Experimental Study of the Ignition of Single Droplets under Forced Convection 366

M. ZIAUDDIN (Cambridge, MA), A. BALAKRISHNA (Amherst, MA), D. G. VLACHOS (Minneapolis, MN), and L. D. SCHMIDT (Cambridge, MA)
Ignition of Methane Flames in Oxygen Near Inert Surfaces: Effects of Composition, Pressure, Preheat, and Residence Time 377

(*continued on next page*)

GUNG CHEN and ALESSANDRO GOMEZ (New Haven, CT)
Dilute Laminar Spray Diffusion Flames near the Transition from Group Combustion to Individual Droplet Burning 392

Brief Communication

ERIN M. CLAUSING, DWIGHT W. SENSER, and NORMAND M. LAURENDEAU (West Lafayette, IN)
Peclet Correlation for Stability of Inverse Diffusion Flames in Methane-Air Cross Flows 405

VOLUME 110 NUMBER 4 SEPTEMBER 1997

Contents

PHILIPPE DAGAUT, MICHEL CATHONNET (Orléans Cedex, France), MARGUERIT MCGUINNESS, and JOHN M. SIMMIE (Galway, Ireland)
The Ignition of Oxetane in Shock Waves and Oxidation in a Jet-Stirred Reactor: An Experimental and Kinetic Modeling Study 409

KATSUO ASATO, HIDETADA WADA, TAKAYUKI HIRUMA (Yanagido Gifu, Japan), and YOSHITAKA TAKEUCHI (Aichi, Japan)
Characteristics of Flame Propagation in a Vortex Core: Validity of a Model for Flame Propagation 418

C. G. FOTACHE, T. G. KREUTZ, and C. K. LAW (Princeton, NJ)
Ignition of Hydrogen-Enriched Methane by Heated Air 429

K. G. SHKADINSKY, G. V. SHKADINSKAYA (Chernogolovka, Russia), and B. J. MATKOWSKY (Evanston, IL)
Filtration Combustion in Moving Media: One and Two Reaction Zone Structures 441

AJAY ATAL, YIANNIS A. LEVENDIS, JOEL CARLSON, YURIY DUNAYEVSKIY and PAUL VOUROS (Boston, MA)
On the Survivability and Pyrosynthesis of PAH During Combustion of Pulverized Coal and Tire Crumb 462

ASHLEY S. HULL, JENNIFER L. LANTHIER, ZUMAO CHEN, and PRADEEP K. AGARWAL (Laramie, WY)
The Role of the Diffusion of Oxygen and Radiation on the Spontaneous Combustibility of a Coal Pile in Confined Storage 479

Ü. Ö. KÖYLÜ, C. S. MCENALLY, D. E. ROSNER, and L. D. PFEFFERLE (New Haven, CT)
Simultaneous Measurements of Soot Volume Fraction and Particle Size/Microstructure in Flames Using a Thermophoretic Sampling Technique 494

INDREK S. WICHMAN and ROBERT VANCE (East Lansing, MI)
A Study of One-Dimentional Laminar Premixed Flame Annihilation 508

I. BRAILOVSKY (Tel Aviv, Israel) and G. I. SIVASHINSKY (New York, NY)
On Stationary and Travelling Flame Balls 524

Volume Contents 530